

OIL ANALYSIS REPORT

Sample Rating Trend



EPIROC MT65 TRK219

Component Rear Right Planetary

PENNZOIL SYNTHETIC SAE 75W140 GL-5 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

Sample Number Client Info WC0750464 WC0750506 Sample Date Client Info 27 Sep 2023 15 Aug 2023 Machine Age hrs Client Info 6884 6580 Oil Age hrs Client Info 500 500 Sample Status Client Info Not Changd Not Changd Sample Status nethod imit/base current history1 history2 Iron ppm ASTM 05185(m) >500 25 22 Nickel ppm ASTM 05185(m) >10 0 0 Nickel ppm ASTM 05185(m) >10 <1 Aluminum ppm ASTM 05185(m) >25 0 0 Iran ppm ASTM 05185(m) >75 <1 <1 Auminum ppm ASTM 05185(m) >5 0 0 Auminum	SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 6884 6580 Oil Age hrs Client Info 500 500 Oil Changed Client Info Not Changd Not Changd Sample Status Imathia Imathia Not Changd Not Changd WEAR METALS method Imit/base current history1 history2 Iron ppm ASTM D5185(m) >500 25 22 Chromium ppm ASTM D5185(m) >10 0 0 Nickel ppm ASTM D5185(m) >10 1 0 Silver ppm ASTM D5185(m) >25 0 0 Aluminum ppm ASTM D5185(m) >25 0 Aluminum ppm ASTM D5185(m) >5 0 Aluminum ppm ASTM D5185(m) >5 0 <t< th=""><th>Sample Number</th><th></th><th>Client Info</th><th></th><th>WC0750464</th><th>WC0750506</th><th></th></t<>	Sample Number		Client Info		WC0750464	WC0750506	
Oil Age hrs Client Info 500 500 Oil Changed Client Info Not Changd Not Changd Sample Status method limit/base current history1 history2 Iron ppm ASTM D5185(m) >500 25 22 Chromium ppm ASTM D5185(m) >10 0 0 Nickel ppm ASTM D5185(m) >10 <1 0 Aluminum ppm ASTM D5185(m) >25 <1 <1 Lead ppm ASTM D5185(m) >25 <1 <1 Antimony ppm ASTM D5185(m) >25 0 0 Copper ppm ASTM D5185(m) >10 0 0 Astm D5185(m) >0 0 Lead ppm ASTM D5185(m) 0 0	Sample Date		Client Info		27 Sep 2023	15 Aug 2023	
Oil Changed Client Info Not Changd Not Changd Sample Status method limit/base current history1 history2 WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185(m) >500 25 22 Chromium ppm ASTM D5185(m) >10 0 0 Nickel ppm ASTM D5185(m) <11	Machine Age	hrs	Client Info		6884	6580	
Sample Status Image: Control of the status NORMAL NORMAL NORMAL	Oil Age	hrs	Client Info		500	500	
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185(m) >500 25 22 Chromium ppm ASTM D5185(m) >10 0 0 Nickel ppm ASTM D5185(m) >10 0 0 Silver ppm ASTM D5185(m) <1 0 Aluminum ppm ASTM D5185(m) >25 <1 <1 Lead ppm ASTM D5185(m) >25 0 0 Copper ppm ASTM D5185(m) >25 0 0 Antimony ppm ASTM D5185(m) >5 0 <1 Vanadium ppm ASTM D5185(m) 0 0 Cadmium ppm ASTM D5185(m) 0 0 Mandances ppm ASTM D5185(m) 0 <1-	Oil Changed		Client Info		Not Changd	Not Changd	
Iron ppm ASTM D5185(m) >500 25 22 Chromium ppm ASTM D5185(m) >10 0 0 Nickel ppm ASTM D5185(m) >10 <1 0 Titanium ppm ASTM D5185(m) <1 <1 Aluminum ppm ASTM D5185(m) >25 <1 <1 Lead ppm ASTM D5185(m) >25 0 0 Copper ppm ASTM D5185(m) >25 0 0 Antimony ppm ASTM D5185(m) >5 0 <1 Antimony ppm ASTM D5185(m) 0 0 Cadmium ppm ASTM D5185(m) 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m)	Sample Status				NORMAL	NORMAL	
Chromium ppm ASTM D5185(m) >10 0 0 Nickel ppm ASTM D5185(m) >10 <1 0 Titanium ppm ASTM D5185(m) <1 <1 Silver ppm ASTM D5185(m) <25 <1 <1 Aluminum ppm ASTM D5185(m) >25 0 0 Lead ppm ASTM D5185(m) >25 0 0 Copper ppm ASTM D5185(m) >25 0 0 Antimony ppm ASTM D5185(m) >5 0 <1 Vanadium ppm ASTM D5185(m) 0 0 Beryllium ppm ASTM D5185(m) 0 0 Addium ppm ASTM D5185(m) 0	WEAR METALS		method	limit/base	current	history1	history2
Nickel ppm ASTM D5185(m) >10 <1	Iron	ppm	ASTM D5185(m)	>500	25	22	
Titanium ppm ASTM D5185(m) 0 0 Silver ppm ASTM D5185(m) <1 <1 Aluminum ppm ASTM D5185(m) >25 <1 <1 Lead ppm ASTM D5185(m) >25 0 0 Copper ppm ASTM D5185(m) >75 <1 <1 Tin ppm ASTM D5185(m) >75 <1 <1 Antimony ppm ASTM D5185(m) >5 0 <1 Vanadium ppm ASTM D5185(m) >5 0 <1 Vanadium ppm ASTM D5185(m) 0 0 Cadmium ppm ASTM D5185(m) 88 95 Boron ppm ASTM D5185(m) 6 Molybdenum ppm ASTM D518	Chromium	ppm	ASTM D5185(m)	>10	0	0	
Silver ppm ASTM D5185(m) <1	Nickel	ppm	ASTM D5185(m)	>10	<1	0	
Aluminum ppm ASTM D5185(m) >25 <1	Titanium	ppm	ASTM D5185(m)		0	0	
Lead ppm ASTM D5185(m) >25 0 0 Copper ppm ASTM D5185(m) >75 <1 <1 Tin ppm ASTM D5185(m) >10 0 0 Antimony ppm ASTM D5185(m) >5 0 <1 Vanadium ppm ASTM D5185(m) >5 0 0 Beryllium ppm ASTM D5185(m) 0 0 Cadmium ppm ASTM D5185(m) 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 0 <1 Malganese ppm ASTM D5185(m) 0 <1 Magnesium ppm ASTM D5185(m) 0 <1 Magnesium ppm ASTM D5185(m) 6 Phosphorus	Silver	ppm	ASTM D5185(m)		<1	<1	
Copper ppm ASTM D5185(m) >75 <1	Aluminum	ppm	ASTM D5185(m)	>25	<1	<1	
Tin ppm ASTM D5185(m) >10 0 Antimony ppm ASTM D5185(m) >5 0 <1 Vanadium ppm ASTM D5185(m) 0 0 Beryllium ppm ASTM D5185(m) 0 0 Cadmium ppm ASTM D5185(m) 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 88 95 Molybdenum ppm ASTM D5185(m) 0 <1 Magnesium ppm ASTM D5185(m) 6 Phosphorus ppm <th>Lead</th> <th>ppm</th> <th>ASTM D5185(m)</th> <th>>25</th> <th>0</th> <th>0</th> <th></th>	Lead	ppm	ASTM D5185(m)	>25	0	0	
Tin ppm ASTM D5185(m) >10 0 Antimony ppm ASTM D5185(m) >5 0 <1 Vanadium ppm ASTM D5185(m) 0 0 Beryllium ppm ASTM D5185(m) 0 0 Cadmium ppm ASTM D5185(m) 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 88 95 Molybdenum ppm ASTM D5185(m) 0 <1 Magnesium ppm ASTM D5185(m) 6 Phosphorus ppm <th>Copper</th> <th>ppm</th> <th>ASTM D5185(m)</th> <th>>75</th> <th><1</th> <th><1</th> <th></th>	Copper	ppm	ASTM D5185(m)	>75	<1	<1	
AntimonyppmASTM D5185(m)>50<1		ppm	ASTM D5185(m)	>10	0	0	
Beryllium ppm ASTM D5185(m) 0 0 Cadmium ppm ASTM D5185(m) 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 88 95 Barium ppm ASTM D5185(m) <1	Antimony	ppm	ASTM D5185(m)	>5	0	<1	
Beryllium ppm ASTM D5185(m) 0 Cadmium ppm ASTM D5185(m) 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 88 95 Barium ppm ASTM D5185(m) 1 0 Molybdenum ppm ASTM D5185(m) 0 <1	Vanadium		ASTM D5185(m)		0	0	
Cadmium ppm ASTM D5185(m) 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 88 95 Barium ppm ASTM D5185(m) <1	Beryllium	ppm	ASTM D5185(m)		0	0	
Boron ppm ASTM D5185(m) 88 95 Barium ppm ASTM D5185(m) <1 0 Molybdenum ppm ASTM D5185(m) 0 <1 Manganese ppm ASTM D5185(m) 0 <1 Magnesium ppm ASTM D5185(m) 0 <1 Calcium ppm ASTM D5185(m) 0 <1 Calcium ppm ASTM D5185(m) 6 5 Phosphorus ppm ASTM D5185(m) 839 902 Zinc ppm ASTM D5185(m) 5 6 Sulfur ppm ASTM D5185(m) 18734 18739 Lithium ppm ASTM D5185(m) <1 <1 Silicon ppm ASTM D5185(m) >75 3 3 Sodium ppm ASTM D5185(m) >75 3 <th></th> <th></th> <th>ASTM D5185(m)</th> <th></th> <th>0</th> <th>0</th> <th></th>			ASTM D5185(m)		0	0	
Barium ppm ASTM D5185(m) <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185(m) 0 <1	Boron	ppm	ASTM D5185(m)		88	95	
Manganese ppm ASTM D5185(m) 0 <1	Barium	ppm	ASTM D5185(m)		<1	0	
Magnesium ppm ASTM D5185(m) 0 <1	Molybdenum	ppm	ASTM D5185(m)		0	<1	
Calcium ppm ASTM D5185(m) 6 5 Phosphorus ppm ASTM D5185(m) 839 902 Zinc ppm ASTM D5185(m) 5 6 Sulfur ppm ASTM D5185(m) 18734 18739 Lithium ppm ASTM D5185(m) < <1 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >75 3 3 Sodium ppm ASTM D5185(m) >75 3 3	Manganese	ppm	ASTM D5185(m)		0	<1	
Phosphorus ppm ASTM D5185(m) 839 902 Zinc ppm ASTM D5185(m) 5 6 Sulfur ppm ASTM D5185(m) 18734 18739 Lithium ppm ASTM D5185(m) < <1 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >75 3 3 Sodium ppm ASTM D5185(m) 2 1	Magnesium	ppm	ASTM D5185(m)		0	<1	
Zinc ppm ASTM D5185(m) 5 6 Sulfur ppm ASTM D5185(m) 18734 18739 Lithium ppm ASTM D5185(m) <1 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >75 3 3 Sodium ppm ASTM D5185(m) 2 1	Calcium	ppm	ASTM D5185(m)		6	5	
Sulfur ppm ASTM D5185(m) 18734 18739 Lithium ppm ASTM D5185(m) <1	Phosphorus	ppm	ASTM D5185(m)		839	902	
LithiumppmASTM D5185(m)<1	Zinc	ppm	ASTM D5185(m)		5	6	
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >75 3 3 Sodium ppm ASTM D5185(m) 2 1	Sulfur	ppm	ASTM D5185(m)		18734	18739	
Silicon ppm ASTM D5185(m) >75 3 3 Sodium ppm ASTM D5185(m) 2 1	Lithium	ppm	ASTM D5185(m)		<1	<1	
Sodium ppm ASTM D5185(m) 2 1	CONTAMINANTS		method	limit/base	current	history1	history2
	Silicon	ppm	ASTM D5185(m)	>75	3	3	
Potassium ppm ASTM D5185/m) > 20 -1 -1	Sodium	ppm	ASTM D5185(m)		2	1	
	Potassium	ppm	ASTM D5185(m)	>20	<1	<1	
VISUAL method limit/base current history1 history2	VISUAL		method	limit/base	current	history1	history2
White Metal scalar Visual* NONE NONE VLITE	White Metal	scalar	Visual*	NONE	NONE	VLITE	
Yellow Metal scalar Visual* NONE NONE NONE	Yellow Metal	scalar	Visual*	NONE	NONE	NONE	
Precipitate scalar Visual* NONE NONE NONE	Precipitate	scalar	Visual*	NONE	NONE	NONE	
Silt scalar Visual* NONE NONE NONE	Silt	scalar	Visual*	NONE	NONE	NONE	
Debris scalar Visual* NONE NONE NONE	Debris	scalar	Visual*	NONE	NONE	NONE	
Sand/Dirt scalar Visual* NONE NONE NONE	Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	
Appearance scalar Visual* NORML NORML NORML	Appearance	scalar	Visual*	NORML	NORML	NORML	
Odor scalar Visual* NORML NORML NORML	Odor	scalar	Visual*	NORML	NORML	NORML	
Emulsified Water scalar Visual* >0.2 NEG NEG	Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	
Free Water scalar Visual* NEG NEG :35:38) Rev: 1 Contact/Location: Mitch Lamontagne - KIR370KIF		scalar	Visual*	6			



OIL ANALYSIS REPORT



